

[illegible]

An ultra-slim disk-spindle motor includes a cylindrical hub 250 of which both ends are opened, the hub having an inner protruding portion 251 formed along a central portion of an inner circumferential face of the hub and an outer protruding portion 252 formed along an upper side of the outer circumferential face of the hub, an upper ball bearing 242 and a lower ball bearing 241 being fixedly inserted above and below the inner protruding portion 251, a permanent magnet 260 bonded to a lower side of an outer circumferential face of the outer protruding portion 252 of the hub 250, a disk 270 mounted on an upper face of the outer protruding portion 252 of the hub 250 and a clamp 280 fixed with the hub using a bolt 281 and 282 in order to mount the disk 270.